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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
07/158,652	02/22/1988	MARC ALIZON	PAST-010-A	3369

7590 05/02/2003

FINNEGAN, HENDERSON, FARABOW,
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1300 I STREET. N.W.
WASHINGTON, DC 200053315

EXAMINER

FREDMAN, JEFFREY NORMAN

ART UNIT	PAPER NUMBER
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1634

DATE MAILED: 05/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

07/158,652

Applicant(s)

ALIZON ET AL.

Examiner

Jeffrey Fredman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 133-141 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 133-141 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Status

1. Claims 1-132 were cancelled
2. Claims 133-141 are pending.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 133-141 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In analysis of the claims for compliance with the written description requirement of 35 U.S.C. 112, first paragraph, the written description guidelines note regarding genus/species situations that "Satisfactory disclosure of a ``representative number" depends on whether one of skill in the art would recognize that the applicant was in possession of the necessary common attributes or features of the elements possessed by the members of the genus in view of the species disclosed." (See: Federal Register: December 21, 1999 (Volume 64, Number 244), revised guidelines for written description.)

Claims 131-141 is drawn to any complete HIV LTR, with or without appended sequence. This claim encompasses an enormous genus of nucleic acids which are

different from the single HIV LTR sequence that is disclosed in the specification. The genus includes variants for which no written description is provided in the specification. Thus, applicant has express possession of only one particular HIV LTR sequence in a genus which comprises hundreds of millions of different possibilities. Here, no common element or attributes of the sequences are disclosed, not even the presence of certain domains. No structural limitations or requirements which provide guidance on the identification of sequences which are necessary to function as an HIV LTR are provided.

It is noted in the recently decided case The Regents of the University of California v. Eli Lilly and Co. 43 USPQ2d 1398 (Fed. Cir. 1997) decision by the CAFC that

"A definition by function, as we have previously indicated, does not suffice to define the genus because it is only an indication of what the gene does, rather than what it is. See *Fiers*, 984 F.2d at 1169- 71, 25 USPQ2d at 1605- 06 (discussing *Amgen*). It is only a definition of a useful result rather than a definition of what achieves that result. Many such genes may achieve that result. The description requirement of the patent statute requires a description of an invention, not an indication of a result that one might achieve if one made that invention. See *In re Wilder*, 736 F.2d 1516, 1521, 222 USPQ 369, 372- 73 (Fed. Cir. 1984) (affirming rejection because the specification does "little more than outlin[e] goals appellants hope the claimed invention achieves and the problems the invention will hopefully ameliorate."). Accordingly, naming a type of material generally known to exist, in the absence of knowledge as to what that material consists of, is not a description of that material. "

In the current situation, the definition of the HIV LTR in claims 133-141 lacks any specific structure. This is precisely the situation of naming a type of material which is

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generally known to likely exist, but except for the one sequence disclosed, fails to provide descriptive support for the generic claim to any complete HIV LTR.

It is noted that in Fiers v. Sugano (25 USPQ2d, 1601), the Fed. Cir. concluded that

"...if inventor is unable to envision detailed chemical structure of DNA sequence coding for specific protein, as well as method of obtaining it, then conception is not achieved until reduction to practice has occurred, that is, until after gene has been isolated...conception of any chemical substance, requires definition of that substance other than by its functional utility."

The current situation is a definition of the compound solely by its functional utility, as an HIV LTR, without any definition of the particular sequences claimed.

In the instant application, certain specific SEQ ID NOs are described. Also, in Vas-Cath Inc. v. Mahurkar (19 USPQ2d 1111, CAFC 1991), it was concluded that:

"...applicant must also convey, with reasonable clarity to those skilled in art, that applicant, as of filing date sought, was in possession of invention, with invention being, for purposes of "written description" inquiry, whatever is presently claimed."

In the application at the time of filing, there is no record or description which would demonstrate conception of any nucleic acids other than those expressly disclosed which comprise complete HIV LTR sequences. Therefore, the claims fail to meet the written description requirement by encompassing sequences which are not described in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 133-141 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang et al (U.S. Patent 6,001,977).

Chang teaches nucleic acid probes of HIV-1 sequence selected from the HIV sequence (column 9, lines 25-62 and column 10, line 65 to column 11, line 32),

where the specific sequence is disclosed as SEQ ID NO: 4, for example (columns 19-28).

The alignment of the Query HIV sequences of Chang and the subject sequences of the present application in the region between nucleotides 5670 and 8132 are presented below.

```
Query:      aaagagcaga 5569
            |||||
Sbjct:      aaagagcaga 5755
env      1      K   E   Q
```

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Query: 5570 agacagtggcaatgagagtgaaggagaaatatcagcacttgtggagatgggggtggagat 5629

|||||
Sbjct: 5756 agacagtggcaatgagagtgaaggagaaatatcagcacttgtggagatgggggtggaaat 5815
env 4 K T V A M R V K E K Y Q H L W R W G W K

Query: 5630 ggggcacccatgctccttgggatgttgatgatctgtagtgctacagaaaaattgtgggtca 5689

|||||
Sbjct: 5816 ggggcacccatgctccttgggatattgatgatctgtagtgctacagaaaaattgtgggtca 5875
env 24 W G T M L L G I L M I C S A T E K L W V

Query: 5690 cagtctattatggggtacctgtgtggaaggaagcaaccaccactctattttgtgcatcag 5749

|||||
Sbjct: 5876 cagtctattatggggtacctgtgtggaaggaagcaaccaccactctattttgtgcatcag 5935
env 44 T V Y Y G V P V W K E A T T T L F C A S

Query: 5750 atgctaaagcatatgatacagaggtacataatgtttgggccacacatgcctgtgtaccca 5809

|||||
Sbjct: 5936 atgctaaagcatatgatacagaggtacataatgtttgggccacacatgcctgtgtaccca 5995
env 64 D A K A Y D T E V H N V W A T H A C V P

Query: 5810 cagaccccaacccacaagaagtagtattggtaaagtgtgacagaaaattttaacatgtgga 5869

|||||
Sbjct: 5996 cagaccccaacccacaagaagtagtattggtaaagtgtgacagaaaattttaacatgtgga 6055
env 84 T D P N P Q E V V L V N V T E N F N M W

Query: 5870 aaaatgacatggtagaacagatgcatgaggatataatcagtttatgggatcaaagcctaa 5929

|||||
Sbjct: 6056 aaaatgacatggtagaacagatgcatgaggatataatcagtttatgggatcaaagcctaa 6115
env 104 K N D M V E Q M H E D I I S L W D Q S L

Query: 5930 agccatgtgtaaaattaaccccactctgtgttagtttaagtgcactgatttgaagaatg 5989

|||||
Sbjct: 6116 agccatgtgtaaaattaaccccactctgtgttagtttaagtgcactgatttggggaatg 6175
env 124 K P C V K L T P L C V S L K C T D L G N

Query: 5994 taataccaatagtagtagcggggagaatgataatggagaaaggagagataaaaaactgctc 6053

|||||
Sbjct: 6195 taataccaatagtagtagcggggaaatgatgatggagaaaggagagataaaaaactgctc 6254
env 151 N T N S S S G E M M M E K G E I K N C S

Query: 6054 tttcaatatcagcacaagcataagaggtgaaggtgcagaaagaatatgcannnnnnnataa 6113

|||||
Sbjct: 6255 tttcaatatcagcacaagcataagaggtgaaggtgcagaaagaatatgcatttttttataa 6314
env 171 F N I S T S I R G K V Q K E Y A F F Y K

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Query: 6114 acttgatataataaccaatagataatgatactaccagctatacgttgacaagttgtaacac 6173
|||||
Sbjct: 6315 acttgatataataaccaatagataatgatactaccagctatacgttgacaagttgtaacac 6374
env 191 L D I I P I D N D T T S Y T L T S C N T

Query: 6174 ctcagtcattacacaggcctgtccaaaggtatcctttgagccaattcccatattattg 6233
|||||
Sbjct: 6375 ctcagtcattacacaggcctgtccaaaggtatcctttgagccaattcccatattattg 6434
env 211 S V I T Q A C P K V S F E P I P I H Y C

Query: 6234 tgccccggctggttttgcgattctaaaatgtaataataagacgttcaatggaacaggacc 6293
|||||
Sbjct: 6435 tgccccggctggttttgcgattctaaaatgtaataataagacgttcaatggaacaggacc 6494
env 231 A P A G F A I L K C N N K T F N G T G P

Query: 6294 atgtacaaatgtcagcacagtacaatgtacacatggaattaggccagtagtatcaactca 6353
|||||
Sbjct: 6495 atgtacaaatgtcagcacagtacaatgtacacatggaattaggccagtagtatcaactca 6554
env 251 C T N V S T V Q C T H G I R P V V S T Q

Query: 6354 actgctgtttaatggcagctctggcagaagaagaggtagtaattagatctgccaatttcac 6413
|||||
Sbjct: 6555 actgctgtttaatggcagctctggcagaagaagaggtagtaattagatctgccaatttcac 6614
env 271 L L L N G S L A E E E V V I R S A N F T

Query: 6414 agacaatgctaaaaccataatagtagcagctgaaccaatctgtagaaattaattgtacaag 6473
|||||
Sbjct: 6615 agacaatgctaaaaccataatagtagcagctgaaccaatctgtagaaattaattgtacaag 6674
env 291 D N A K T I I V Q L N Q S V E I N C T R

Query: 6474 acccaacaacaataacaagaaaaagtatccgtatccagagaggaccagggagagcatttgt 6533
|||||
Sbjct: 6675 acccaacaacaataacaagaaaaagtatccgtatccagaggggaccagggagagcatttgt 6734
env 311 P N N N T R K S I R I Q R G P G R A F V

Query: 6534 tacaataggaaaaataggaaatatgagacaagcacattgtaacattagtagagcaaaatg 6593
|||||
Sbjct: 6735 tacaataggaaaaataggaaatatgagacaagcacattgtaacattagtagagcaaaatg 6794
env 331 T I G K I G N M R Q A H C N I S R A K W

Query: 6594 gaataacacttttaaacagatagatagcaaattaagagaacaatttggaataataaaaac 6653
|||||
Sbjct: 6795 gaatgccacttttaaacagatagctagcaaattaagagaacaatttggaataataaaaac 6854
env 351 N A T L K Q I A S K L R E Q F G N N K T

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Query: 6654 aataatctttaagcagtcctcaggaggggacccagaaaattgtaacgcacagttttaattg 6713
|||||
Sbjct: 6855 aataatctttaagcaatcctcaggaggggacccagaaaattgtaacgcacagttttaattg 6914
env 371 I I F K Q S S G G D P E I V T H S F N C

Query: 6714 tggaggggaatttttctactgtaattcaacacaactgtttaatagtacttggtttaatag 6773
|||||
Sbjct: 6915 tggaggggaatttttctactgtaattcaacacaactgtttaatagtacttggtttaatag 6974
env 391 G G E F F Y C N S T Q L F N S T W F N S

Query: 6774 tacttggagtactaaagggtcaaataacactgaaggaagtgcacacacacccctcccatg 6833
|||||
Sbjct: 6975 tacttggagtactgaaggggtcaaataacactgaaggaagtgcacacacacactcccatg 7034
env 411 T W S T E G S N N T E G S D T I T L P C

Query: 6834 cagaataaaaacaattataaacatgtggcaggaagtaggaaaagcaatgtatgcccctcc 6893
|||||
Sbjct: 7035 cagaataaaaacaattataaacatgtggcaggaagtaggaaaagcaatgtatgcccctcc 7094
env 431 R I K Q F I N M W Q E V G K A M Y A P P

Query: 6894 catcagtggaacaaattagatgttcatcaaatattacagggctgctattaacaagagatgg 6953
|||||
Sbjct: 7095 catcagcggaacaaattagatgttcatcaaatattacagggctgctattaacaagagatgg 7154
env 451 I S G Q I R C S S N I T G L L L T R D G

Query: 6954 tggtaatagcaacaatgagtcagatcttcagacctggaggaggagatatgagggacaa 7013
|||||
Sbjct: 7155 tggtaataacaacaatgggtccgagatcttcagacctggaggaggagatatgagggacaa 7214
env 471 G N N N N G S E I F R P G G G D M R D N

Query: 7014 ttggagaagtgaattatataaatataaaagtagtaaaaattgaaccattaggagtagcacc 7073
|||||
Sbjct: 7215 ttggagaagtgaattatataaatataaaagtagtaaaaattgaaccattaggagtagcacc 7274
env 491 W R S E L Y K Y K V V K I E P L G V A P

Query: 7074 caccaaggcaaagagaagagtggtgcagagagaaaaaagagcagtggggaataggagcttt 7133
|||||
Sbjct: 7275 caccaaggcaaagagaagagtggtgcagagagaaaaaagagcagtggggaataggagcttt 7334
env 511 T K A K R R V V Q R E K R A V G I G A L

Query: 7134 gttccttgggttcttgggagcagcaggaagcactatgggagcagcgtaacgacgctgac 7193
|||||
Sbjct: 7335 gttccttgggttcttgggagcagcaggaagcactatgggagcagcgtaacgacgctgac 7394
env 531 F L G F L G A A G S T M G A R S M T L T

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Query: 7194 ggtacaggccagacaattattgtctggtatagtgcagcagcagaacaatttgctgagggc 7253
|||||
Sbjct: 7395 ggtacaggccagacaattattgtctggtatagtgcagcagcagaacaatttgctgagggc 7454
env 551 V Q A R Q L L S G I V Q Q Q N N L L R A

Query: 7254 tattgaggcgcaacagcatctgttgcaactcacagtctggggcatcaagcagctccaggc 7313
|||||
Sbjct: 7455 tattgaggcgcaacagcatctgttgcaactcacagtctggggcatcaagcagctccaggc 7514
env 571 I E A Q Q H L L Q L T V W G I K Q L Q A

Query: 7314 aagaatcctggctgtggaaagatacctaaaggatcaacagctcctggggatttggttg 7373
|||||
Sbjct: 7515 aagaatcctggctgtggaaagatacctaaaggatcaacagctcctgggnatttggttg 7574
env 591 R I L A V E R Y L K D Q Q L L G I W G C

Query: 7374 ctctggaaaactcatttgcaccactgctgtgccttggaatgctagttggagtaataaatc 7433
|||||
Sbjct: 7575 ctctggaaaactcatttgcaccactgctgtgccttggaatgctagttggagtaataaatc 7634
env 611 S G K L I C T T A V P W N A S W S N K S

Query: 7434 tctggaacagatttggaataacatgacctggatggagtgggacagagaaattaacaatta 7493
|||||
Sbjct: 7635 tctggaacagatttggaataacatgacctggatggagtgggacagagaaattaacaatta 7694
env 631 L E Q I W N N M T W M E W D R E I N N Y

Query: 7494 cacaagcttaatacactccttaattgaagaatcgcaaaaccagcaagaaaagaatgaaca 7553
|||||
Sbjct: 7695 cacaagcttaatacattccttaattgaagaatcgcaaaaccagcaagaaaagaatgaaca 7754
env 651 T S L I H S L I E E S Q N Q Q E K N E Q

Query: 7554 agaattattggaattagataaatgggcaagtttggtggaattggtttaacataacaaattg 7613
|||||
Sbjct: 7755 agaattattggaattagataaatgggcaagtttggtggaattggtttaacataacaaattg 7814
env 671 E L L E L D K W A S L W N W F N I T N W

Query: 7614 gctgtggtatataaaaattattcataatgatagtaggaggcttggtaggtttaagaatagt 7673
|||||
Sbjct: 7815 gctgtggtatataaaaattattcataatgatagtaggaggcttggtaggtttaagaatagt 7874
env 691 L W Y I K I F I M I V G G L V G L R I V

Query: 7674 ttttgctgtactttctgtagtgaatagagtttaggcagggatattcaccattatcgtttca 7733
|||||
Sbjct: 7875 ttttgctgtactttctatagtgaatagagtttaggcagggatattcaccattatcgtttca 7934
env 711 F A V L S I V N R V R Q G Y S P L S F Q

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```
Query: 7734 gacccacctcccaatcccgaggggacccgacaggcccgaaggaatagaagaagaagggtgg 7793
          |||
Sbjct: 7935 gacccacctcccaaccccgaggggacccgacaggcccgaaggaatagaagaagaagggtgg 7994
env      731   T H L P T P R G P D R P E G I E E E G G
```

```
Query: 7794 agagagagacagagacagatccattcgattagtgaacggatccttagcacttatctggga 7853
          |||
Sbjct: 7995 agagagagacagagacagatccattcgattagtgaacggatccttagcacttatctggga 8054
env      751   E R D R D R S I R L V N G S L A L I W D
```

```
Query: 7854 cgatctgcggagcctgtgcctcttcagctaccaccgcttgagagacttactcttgattgt 7913
          |||
Sbjct: 8055 cgatctgcggagcctgtgcctcttcagctaccaccgcttgagagacttactcttgattgt 8114
env      771   D L R S L C L F S Y H R L R D L L L I V
```

```
Query: 7914 aacgaggattgtggaacttctgggacgcagggggtgggaagccctcaaataattggtggaa 7973
          |||
Sbjct: 8115 aacgaggattgtggaacttctgggacgcagggggtgggaagccctcaaataattggtggaa 8174
env      791   T R I V E L L G R R G W E A L K Y W W N
```

```
Query: 7974 tctcctacagtattggagtcaggagctaaa
          |||
Sbjct: 8175 tctcctacagtattggagtcaggaactaaa
env      811   L L Q Y W S Q E L K
```

It is noted that with regard to, for example, the sequence region claimed, there are 25 nucleotide differences between the sequences. It is noted that the art recognizes that sequencing errors occur in a range between 0.3 % and 2.5%, as evidenced by Richterich (Genome Research (1998) 8:251-259). However, these error rates are determined using technology that was significantly more advanced than that in 1984, when sequencing error rates were likely significantly higher. In the 2,462 nucleotide sequence which is the first sequence of claim 30, 25 errors would represent approximately a 1% error rate. Thus, these sequences are identical within the error range available and the anticipation rejection is proper.

Response to Arguments

5. Applicant's arguments filed March 7, 2003 have been fully considered but they are not persuasive.

First, Applicant will note the written description rejection, which addresses the absence of sequence attached to the "HIV LTR" phrase.

Second, Applicant argues that the current claims are distinguished from the Chang prior art because Chang expressly recognizes that part of the LTR sequence is not completely disclosed and the claims encompass that region. In particular, Applicant relies upon the specification of Chang, which notes at page 9 that "Because there are two SstI recognition sites within the LTR of HTLV-III DNA, one LTR region is not present in the cloned DNA sequence removed from the Lambda10 vector. As a result, a small (approximately 200 bp) fragment of the HTLV-III DNA is missing."

There are two separate problems with this argument. First, applicant has not shown which specific sequence was absent in Chang. HIV has two LTR regions, a 5' LTR and a 3' LTR. A review of genbank record K03455 demonstrates that the 5' LTR has the two Sst I sites discussed by Chang while the 3' LTR does not, thus indicating that Chang teaches a complete 3' LTR. Thus, to the extent that the claim requires a complete HIV LTR, Chang teaches a complete 3' LTR. Second, with regard to the sequences disclosed, none of these overlap or comprise the missing region in the 5' LTR. The 5' LTR region is shown below, with the two SstI sites underlined and in bold.

1 **tggaagg**gct aattcactcc caacgaagac aagat**atc**ct tgatctgtgg atctaccaca

61 cacaaggcta cttccctgat tagcagaact acacaccagg gccagggatc agatatccac

121 tgacctttgg atggtgctac aagctagtag cagttgagcc agagaagtta gaagaagcca
181 acaaaggaga gaacaccagc ttgttacacc ctgtgagcct gcatggaatg gatgaccgg
241 agagagaagt gttagagtgg aggtttgaca gccgcctagc atttcatcac atggcccag
301 agctgcatcc ggagtacttc aagaactgct gacatcgagc ttgctacaag ggactttccg
361 ctggggactt tccagggagg cgtggcctgg gcgggactgg ggagtggcga gccctcagat
421 cctgcatata agcagctgct tttgcctgt actgggtctc tctggttaga ccagatctga
481 gcctgggagctctctggcta actaggaac ccactgctta agcctcaata aagcttgct
541 tgagtgttc aagtagtgtg tgcccgtctg ttgtgtgact ctggtaacta gagatccctc
601 agaccctttt agtcagtgtg gaaaatctct agcagtggcg cccgaacagg gacctgaaag
661 cgaaagggaa accagaggagctc

So it is this region between nucleotides 486 and 682 which is missing in Chang, according to Chang. None of applicant's claims are drawn to this region in any specific way, and since Chang teaches a complete 3' HIV LTR, Chang continues to meet the limitations of the claim.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Fredman whose telephone number is 703-308-6568. The examiner can normally be reached on 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 703-308-1119. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.



Jeffrey Fredman
Primary Examiner
Art Unit 1634

April 30, 2003